

CONIONSKIY, S.A., otv. red.; GRIGULEVICH, I.R., red.; YEFIMOV,
A.V., red.; GORNOV, M.F., red.; RUDENKO, V.T., red.

[Chile; its politics, economy, culture] Chili; politika,
ekonomika, kul'tura. Moskva, Nauka, 1965. 353 p.
(MIRA 18:9)

1. Akademiya nauk SSSR. Institut Latinskoy Ameriki.

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDENKO, V.T.,

Fluidization of sugar (from "Gazeta Cukrownicza," No.11,
1958). Sakh. prom. 33 no.4:70 Ap '59. (MIRA 12:6)
(Sugar manufacture)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

RUDENKO, V.V.

Make wider use of asbestos-cement pipes. Stroi.tribeprov. 3 no.7r
26-27 Jl '63. (MIL A 17e2)

1. Institut Kabbalkproyekt, Nal'chik.

MYASNIKOV, Konstantin Viktorovich; RUDENKO, Vasiliy Vladimirovich;
BURTSEV, L.I., kand. tekhn. nauk, retsenzent; KOVALEV, I.A.,
kand. tekhn. nauk, otv. red.

[Using hardening fillers during the mining of mineral deposits]
Primenenie tverdeiushchei zakladki pri razrabotke rudnykh me-
storozhdenii. Moskva, Izd-vo "Nedra," 1964. 121 p.
(MIRA 17:4)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

PRIGOZHIN, Ye.I., gorny inzhener; RUDENKO, V.V., gorny inzhener.

Testing data on the PSh-20 sinking perforator. Gor.zhur. no.5:
25-26 My '56. (MLRA 9:8)

(Rock drills)

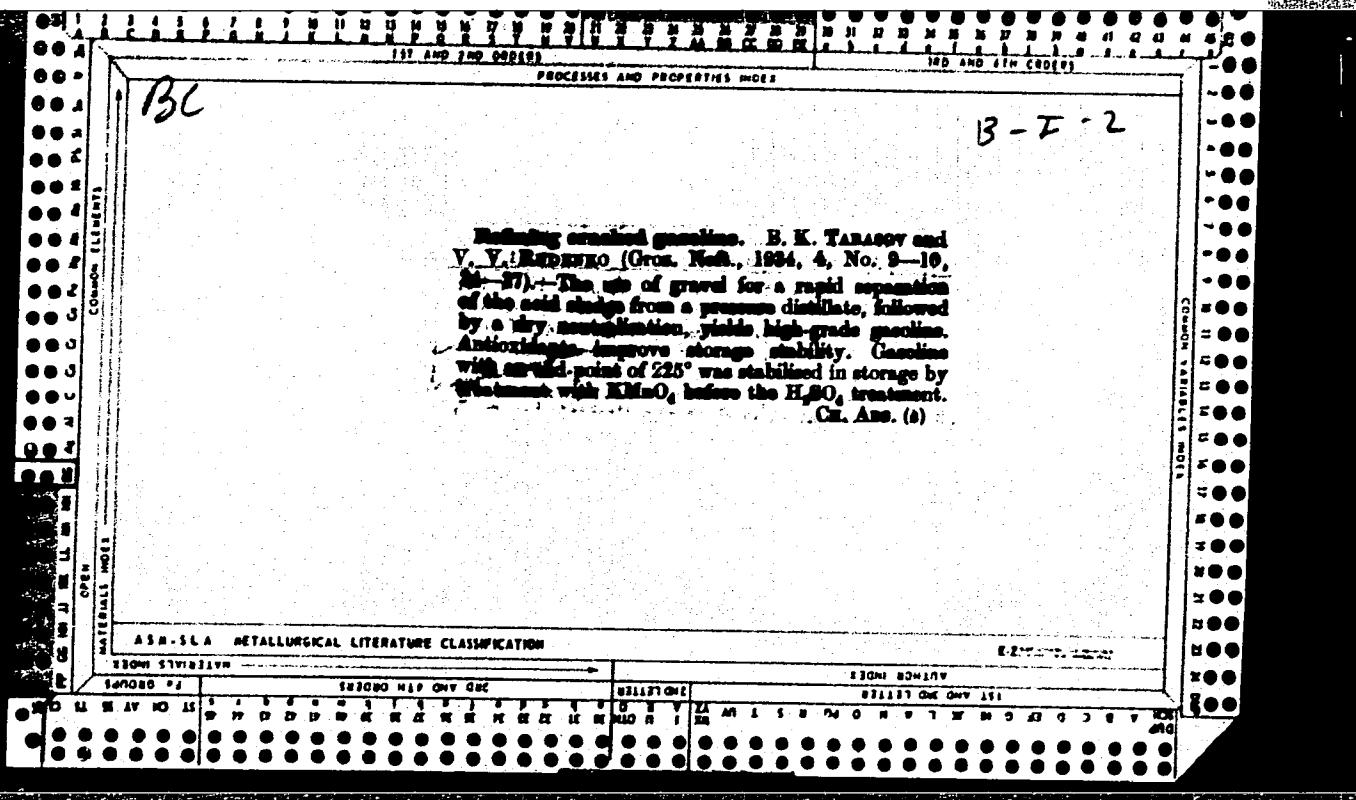
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CIA-RDP86-00513R001445920010-5"

The determination of gum dissolved in kerosene
B. K. Tarasov and V. V. Rudenko. *Goszemkh Neftegaz*
4, No. 1, 65 (1934).—The methods for the detn. of gum
as applied to gasoline cannot be used for kerosene be-
cause of its low vapor pressure. The following method
gives reliable results for cracked kerosene to be used in
tractors. Evap. a 25-cc. sample of the cracked kerosene
in a beaker 8 cm. in diam. and 7 cm. high on an elec-
tric hot plate at 210° in a current of N or CO₂ of a velocity
of 20 l. per min. Direct the gas jet perpendicularly to
the surface of the liquid and as nearly as possible to its
center. The diam. of the gas tube is one cm. and its
distance from the liquid is 3 cm. Dry the residue at 110°
for 30 min. and weigh. The gum is expressed in mg. per
100 cc. of the product.

100-114 METALLURGICAL LITERATURE CLASSIFICATION

~~811133 CAT G47 132~~



Stabilization of cracked gasolines by fractions of beech tar. P. A. Sentsov and V. V. Rudenko. *Izv. Akad. Nauk. - Issledovaniya Neftegazovogo Inst.* 1939, No. 3, 130-141; *Khim. Referat. Zhur.* 1940, No. 1, 105. A comparison of inhibitors obtained from peat tar, low-temp. and high-temp. coal tars, and tars from birch and beech showed that a max. effect is obtained from the beech-tar fraction b, 280-300°. Various samples of cracked gasoline stabilized with beech tar were exposed to dispersed light at 17-21°. The temp. stability was detd. by keeping the gasoline for 12 days at 70° ± 3° in a glass container under a reflux condenser. Pressure distillate when made alk. and stabilized by this fraction of beech tar has a high induction period, remains unchanged under natural conditions for 8 months and is stable against high temps. After 6 months the stabilized gasoline was still suitable for use in internal-combustion engines. The production of beech tar is described. W. R. Henn

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CIA-RDP86-00513R001445920010-5"

Rapid determination of dissolved gum in cracked
naphtha and benzene. V. V. Rudnikov and D. M.
Musilova. Gorenje-kir Neftegaz, No. 3, 1983.

(1987) The determination is carried out in a thermostat with double walls, the jacketed space being charged with ethyl-glycol heated to 120°. A copper coil is placed in the jacketed space and purified air is passed through this coil into the interior of the thermostat. A known sample is placed in a tared beaker, and the air admitted 3 cm above the surface of the liquid. The blowing is continued to complete evapn and the beaker is cooled and weighed. A detailed description of the app. and the procedure is given.

CD

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ASA-SEA METALLURGICAL LITERATURE CLASSIFICATION

Refining cracked gasoline. B. K. Tarasov and V. V. Rudenko. *Grazenkii Neftegaz.* 4, No. 9-10; 107 (1937).—The use of gravel for a rapid sepn. of the acid sludge from a pressure distillate, followed by a dry neutralization, yields high-grade gasoline, although improved stability in storage results from introducing antioxidants. Samples stable in storage were obtained from gasoline with an end point of 225° which received a preliminary treatment with $KMnO_4$ before the H_2SO_4 treatment. The high content of potential gum (present in this gasoline) indicates that probably O-contg. compds. are formed by the oxidizing agent. These compds. cannot be removed by H_2SO_4 , and they are stable at ordinary temp., although they induce gum formation on storage. Treatment with large quantities of H_2SO_4 yields gasoline low in potential gum, the consumption of H_2SO_4 depending on the character of the pressure distillate. Heavy gasolines are more stable than the lighter gasolines after a doctor treatment, provided that an excess of elementary S is absent. This is due to the stabilizing effect of the high-boiling fractions. The high-boiling fractions (in excess of 150°) contain natural stabilizers which are removed in the refining. By adding these fractions to the light gasoline, the latter is stabilized, although it then has an unsatisfactory color. Eleven references. A. A. Boehlingk.

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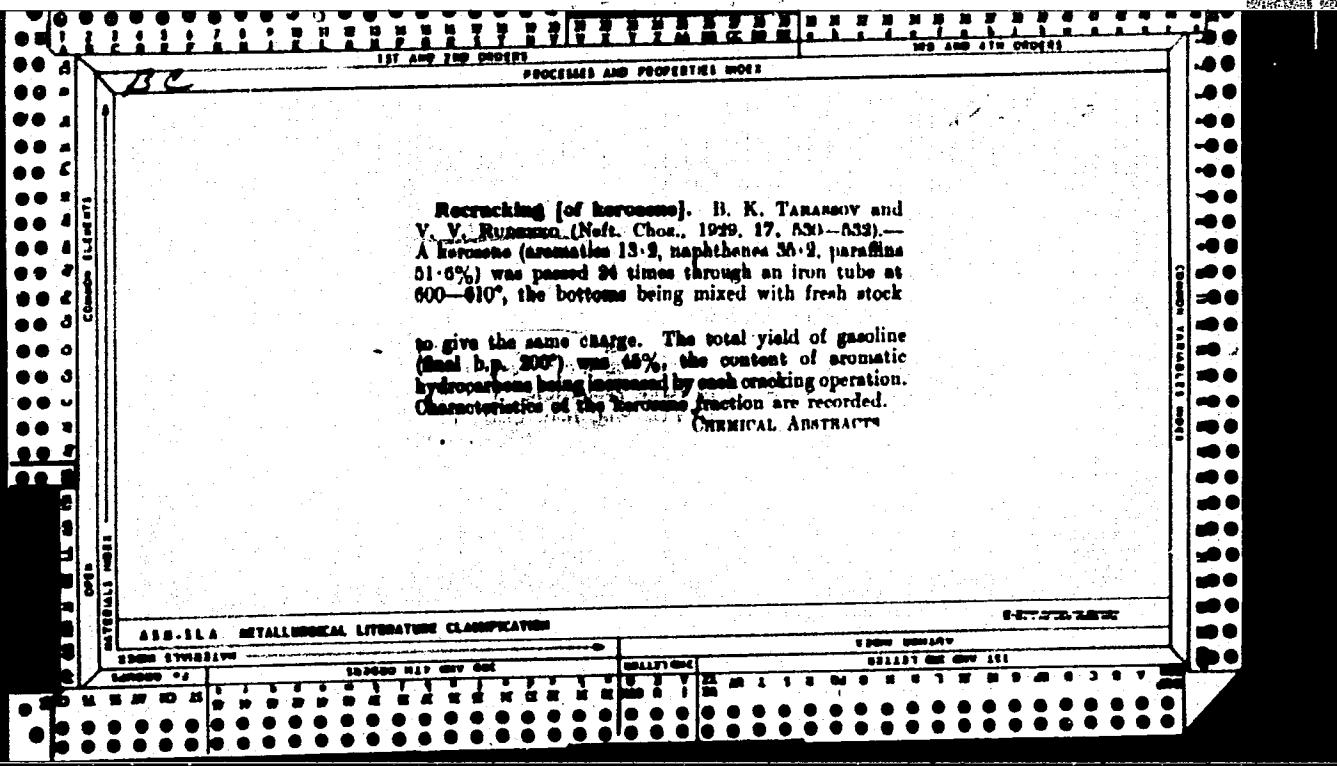
CO

Reracking. II. B. K. TARASOV AND V. V. RUDENKO. *Neftegaz. Khosyazhstvo* 19, 589-603(1930); cf. C. A. 24, 1731.—Gas-oil fractions were recycled after removing the gasoline cut (b. below 150°) and the heavy ends b. above 320°. The shrinkage was made up by the addn. of fresh gas oil. The aromatics present in the gasoline were detd. by a modified nitrating method (described in detail). The unsatd. compds. were first removed by treatment with AlCl₃. No polymerization or condensation was

observed. The fact that the nitration products were of a liquid consistency confirms the observation. The amt. of unsatd. compds. was detd. as follows: a weighed amt. of sample was diluted with CCl₄ and titrated with a standardized Br soln. in CCl₄. An excess of the soln. was then added and the whole left standing for 15 min. The excess of Br was titrated with thiosulfate after adding an alc. soln. of KI. The HBr from the substitution reaction was titrated with caustic in the presence of methyl orange. The reracking was carried out according to a process described earlier (C. A. 24, 1731). The cracking temp. was 650°, the velocity of feed 700 g. per hr. and the charge 1800 g. Gas oils from asphalt-base and paraffin-base crude oils were investigated. It was found that heavy tar b. below 320° can be used in recycling. The increase in the sp. gr. of the cracking stock does not affect the formation of coke provided that the heavier fractions are removed. The addn. of the heavy tar increases the content of aromatics in the gasoline as well as its cum. value. These heavy tars obtained as a result of repeated cracking are very high in aromatics and can be used as a raw material for various chem. purposes, while residues b. above 320° can be used for prep. asphalt emulsions. The cracking operation, distn. of various cuts obtained, as well as their properties, are described. A. A. BOHTELINGK

ASTM-SEA METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED	INDEXED	FILED	SEARCHED	INDEXED	FILED
SEARCHED	INDEXED	FILED	SEARCHED	INDEXED	FILED



0734 L-67 EWT(d)/EWP(r). EWT(.)
ACC NR: AP6012134 (A)

SOURCE CODE: UR/0413/66/000/007/0052/0053

AUTHORS: Rudenko, Ye. S.; Trubnikov, Yu. A.; Minenko, O. R.

ORG: none

TITLE: Crane equipment for transporting and handling flat loads of various sizes.
Class 35, No. 180321

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 52-53

TOPIC TAGS: hoisting equipment, material handling, crane

ABSTRACT: This Author Certificate presents a crane equipment for transporting and handling flat loads of various sizes, not designed to support their own weight without bending. The equipment contains a traverse suspended from the edge of the crane and two hoisting drums. In the course of manipulating the loads, cables are wound onto these drums in various directions. The cables carry holding devices. To expedite the changes necessary for handling loads of different sizes and to simplify its construction, the holding mechanism has the form of a frame with a system of clamps (see Fig. 1). Each side of the frame carries coplanar inserts in the form of struts. The frame is suspended not only from the drum cables, but also along its long sides by the cables passing over the blocks to the traverse. The drums are connected to one another with rapidly demountable clamps and are turned by an

Card 1/3

UDC: 621.873/875.06-229.72

ACC NR: AP601213b

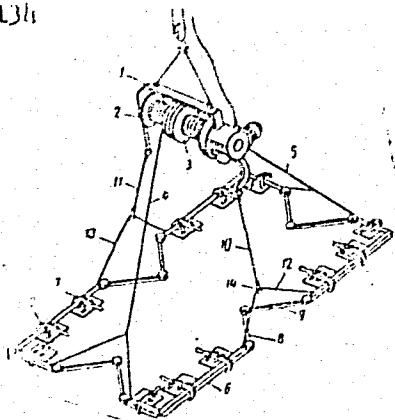


Fig. 1. 1 - traverse; 2 and 3 - hoisting drums; 4 and 5 - cables; 6 - frame; 7 - clamps; 8 and 9 - hinged struts; 10 and 11 - cables; 12 and 13 - flexible loops; 14 - blocks

electric motor through a reducing gear and a clutch. The latter makes it possible to separate the drums from the reducing gear when it becomes necessary to unwind some of the cables between the frame and the drums. In this situation, the drums are disconnected from one another so that they are free to turn in different directions, independently. Each clamp consists of an arm free to turn in a vertical plane in respect to the frame. The clamping surface is curved and nearly cylindrical. It interacts with the upper surface of the clamped load, and is free to turn on the arched guides of a \Pi -shaped handle. The openings in the walls of this handle serve to accommodate a prong fixed to the free end of the rod. At the lower part of the

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ACC NR. AF6012134

Handle, which forms an extension of the walls, there lie clamps for grasping the end of the load. These clamps are provided with a bearing plane interacting with the lower surface of the clamped load at the part farther from the handle than the zone of interaction between the aforementioned strut and the upper surface of the load (when the handle is in the working vertical position). This arrangement assures a proper clamping of the load to the frame. The clamping part of the arm may be hinged to an interchangeable shoe. A rubber insert is placed between the inner surface of the shoe and the surface of the arm. This insert is reinforced with a blade spring. To provide for the remote control of the clutch and to diminish its size, a conical trunnion of the drum is used as one of the half-clutches. This trunnion lies on the side of the reducer formed as a worm gear. The second half-clutch is also conical. It is inserted into the worm wheel of the reducer, is attached to it through a slot connection, and carries a flattened stem with a nut carrying a crown sprocket. The latter meshes with a toothed rack attached to the support of an electromagnet. The button for throwing on the electromagnet is on the directing panel within the cabin of the crane. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 21Oct64

Card 3/3

RUDENKO, Yu. N., Cand Tech Sci -- (diss) "Research into conditions associated with the unsynchronized course of generators at large-scale hydroelectric power stations." Leningrad, 1960. 17 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Polytechnic Inst im M. I. Kalinin); 150 copies; price not given; (KL, 17-60, 159).

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDENKC, Ya., inzh.

Mesh-reinforced concrete tanks. Stroitel' no.5:5-6 My '61.
(MIRA 14:6)

(Reinforced concrete) (Tanks)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

GOSHIN, S.A., inzhener; RUDENKO, Ya.I.

Automatization of milling operations. Vest.mash. 36 no.10:44-46
0 '56. (MLEA 9:11)

(Milling machines)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDENKO, Ye.A.; SERGEEV, A.G.; PETROV, K.I.

Glue for applying Lincrusta to walls and partitions. Rats.1
izobr.predl.v stroi. no.60:21-22 '53. (MIRA 7:2)
(Glue) (Lincrusta-Walton)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

RECOMMENDED, VOL. 1.

Ryabova, Ye. I. - "The adsorption properties of clay", Trudy Astrakh. gos. ped. in-ta, Vol. IX, 1948, p. 64-68.

SO: U-3742, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

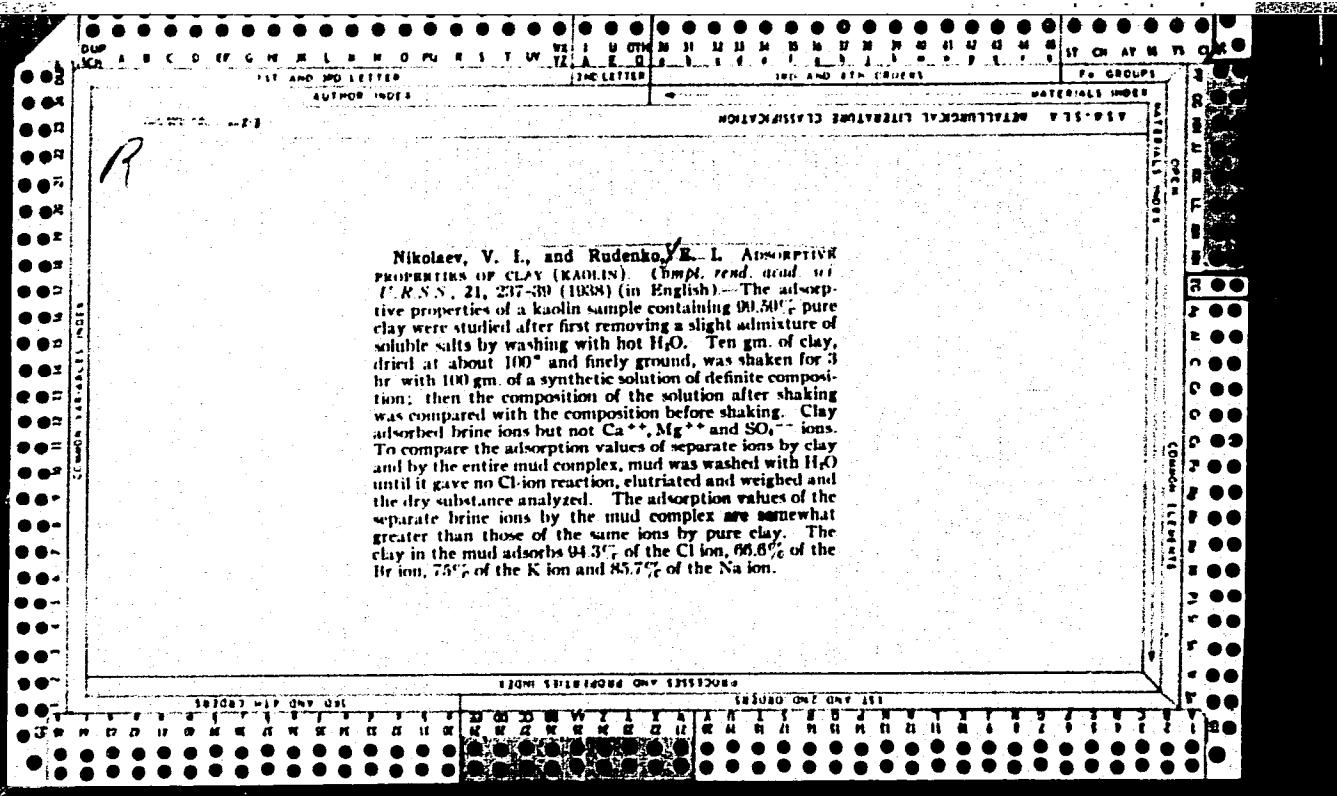
RUDENKO, V. I.

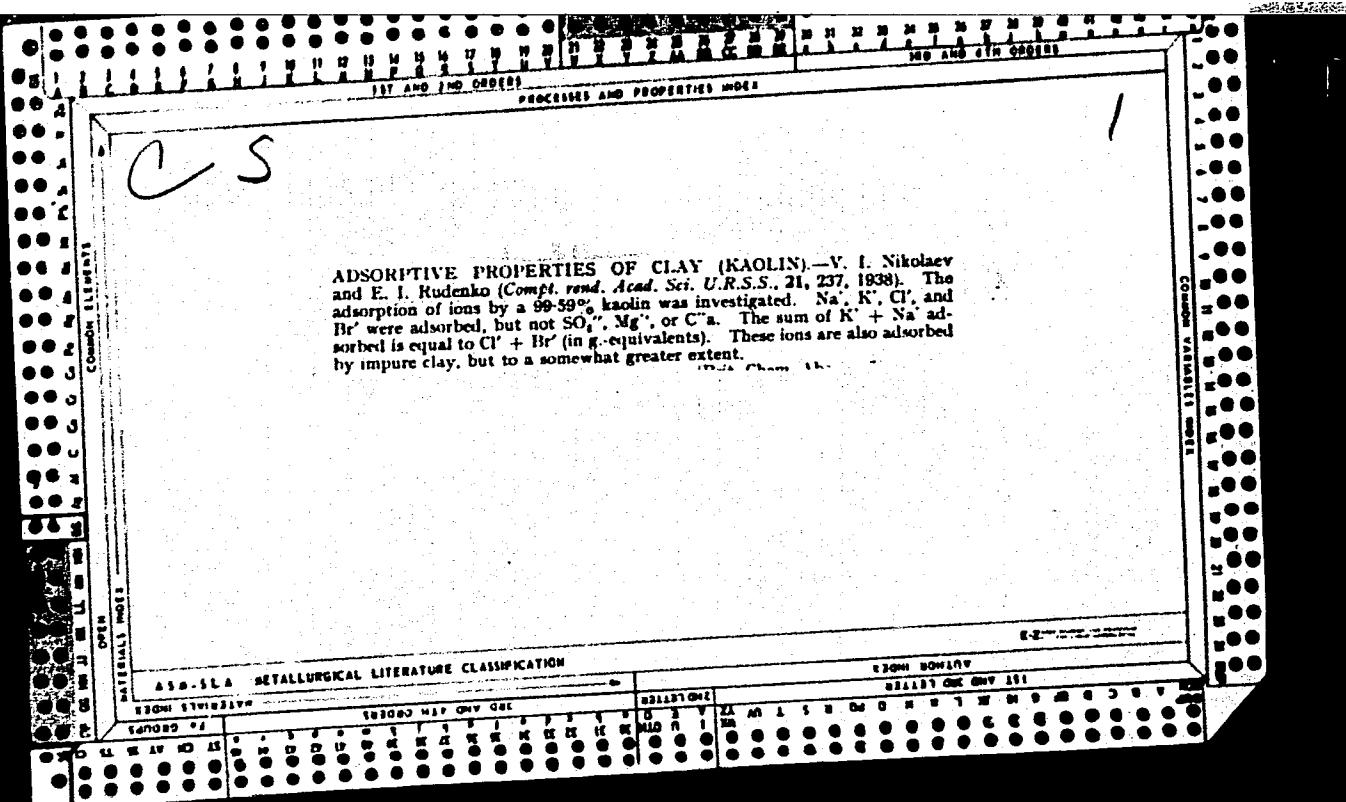
Rudenko, V. I. - "On the problem of coloring therapeutic vials with a clay coating", Trudy astraph. san. med. in-ta, Vol. IX, 1945, p. 69-72.

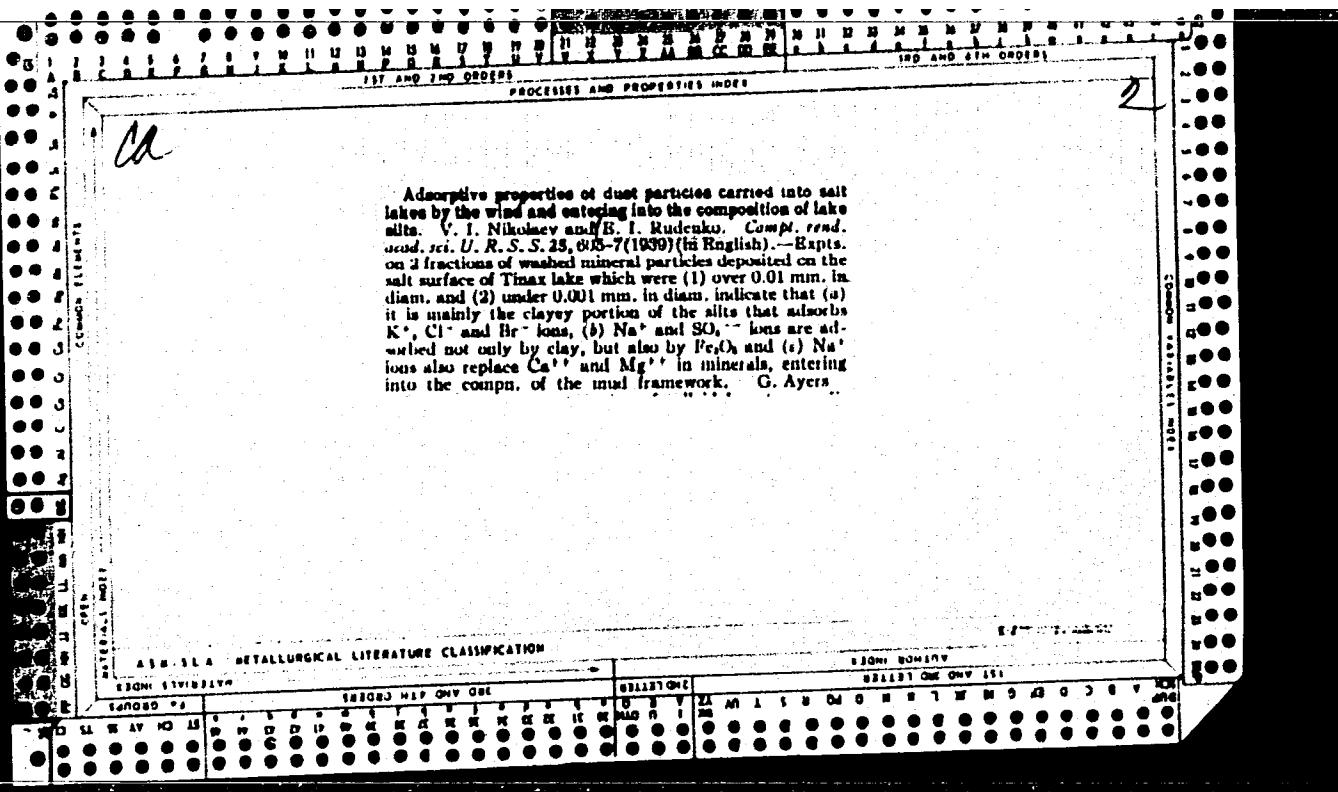
SO: U-3642, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949).

RUDENKO, Yevgeniy Ivanovich; TAUBE, Petr Reymol'dovich; KRASHOV, V. N.,
red.; KLIMOVA, Z.I., tekhn. red.

[One hundred and one...] Sto odin... Astrakhan', Izd-vo
gazety "Volga," 1958. 272 p. (MIRA 14:5)
(Chemical elements)







PRINCIPLES AND PROPERTIES OF...

Adhesive properties of clay (kaolin). V. I. NIKOLAEV and E. L. RUDAKO. (Compt. rend. Acad. Sci. U.R.S.S., 1938, 21, 237-239).—The adsorption of ions by a 90-95% kaolin has been investigated. Na^+ , K^+ , Cl^- , and Br^- were adsorbed, but not SO_4^{2-} , Mg^{2+} , or Ca^{2+} . The sum of K^+ + Na^+ adsorbed is equal to Cl^- + Br^- (in g-equiv.). These ions are also adsorbed by impure clay but to a somewhat greater extent.

A. J. M.

AND AREA METALLURGICAL LITERATURE CLASSIFICATION

Absorption properties of colloidal iron oxide. E. I. Rudenko and V. I. Nikolayev. *Bull. Acad. sci. U.R.S.S., Chem. mat. natl. Nauk. chim.* 1930, 10(5) 51 (in German 1932). As a contribution to the study of the absorption properties of sea and lake muds with respect to the ions of natural brines the behavior of colloidal Fe(OH)_3 -I has been studied. With the exception of Ca and Mg ions all other ions present in natural brines are adsorbed by I, but no equiv. relation between the adsorbed cations and anions could be discovered. After adsorption, I was stabilized against the action of H₂S except for the formation of FeS at the surface of the colloidal granules. The formation of FeS in mud may be due to oxidation of H₂S and elimination of the liberated H in favor of the powerfully adsorbed ions.

C. R. Addinall

U.S.A. METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

RUDENKO, Evgeniy Ivanovich; TAUBE, Petr Reymondovich;
PETRENCHUK, O.P., ctv. red.; BOYKOVA, A.G., red.

[Fifth ocean] Piatyi okean. Leningrad, Gidrometeoizdat,
(MIRA 18:12)
1965. 167 p.

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDENKO, Yevgeniy Ivanovich; VENYUROV, I.I., kand. med. nauk, docents., nauchn. red.; PAVLOVSKIY, A.Ya., rea.

[Do you know yourself?] Znaesh' li ty sebia? 2. izd.
(MIRA 18:2)
Astrakhan', Volga, 1963. 291 p.

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CIA-RDP86-00513R001445920010-5"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

TAUPE, Petr Reyngol'dovich; RUDENKO, Yevgeniy Ivanovich; KONDRASHKOVA,
S.F., red.

[From hydrogen to...?] Ot vodoroda do...? Moskva, Vysshiaia
shkola, 1964. 351 p. (MIRA 17:7)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

TAUKE, Petr Reyngol'dovich; RUDENKO, Yevgeniy Ivanovich; ZAKHARIKOVA,
Ye.I., red.; YEZHOOVA, L.L., tekhn. red.

[From hydrogen to nobelium?] Ot vodoroda do ... nobelija?
Moskva, Gos. izd-vo "Vysshiaia shkola," 1961. 329 p.
(MIRA 15:3)

(Chemical elements)

HUDENKO, Yevgeniy Ivanovich; TAUBE, Petr Reyngol'dovich; KRASNOV, V.N.,
red.; KLIMOVA, Z.I., tekhn.red.

[One hundred and one] Sto odin. Astrakhan', Izd-vo gazety
"Volga," 1958. 272 p.
(Periodic law)

(MIRA 13:6)

RUDENKO, E. I.

Vikulov, V. I., and Rudenko, E. I. ABSORPTIVE PROPERTIES OF CLAY (KAOLIN). Compt. rend. acad. sci. U.R.S.S. 21, 237-39 (1938). (In English).-- The adsorptive properties of a kaolin sample containing 99.5% pure clay were studied after first removing a slight admixture of soluble salts by washing with hot H₂O. Ten gm. of clay, dried at about 100° and finely ground, was shaken for 3 hr. with 100 gm. of a synthetic solution of definite composition; then the composition of the solution after shaking was compared with the composition before shaking. Clay adsorbed brine ions but not Ca⁺, Li⁺ and SO₄²⁻ ions. To compare the adsorption values of separate ions by clay and by the entire mud complex, mud was washed with H₂O until it gave no Cl-ion reaction, elutriated and weighed and the dry substance analyzed. The adsorption values of the separate brine ions by the mud complex are somewhat greater than those of the same ions by pure clay. The clay in the mud adsorbs 94.3% of the Cl ion, 66.6% of the Br ion, 75% of the K ion and 85.7% of the Na ion.

VIDENOV, V. I.

Rudenko, Ye. I. - "The role of lacolin, polymineral clay, and other component parts of salt minerals in the heterorhombosis of salt lakes", Trudy Astrakh. gos. red. in-ta, Vol. IX, 1948, p. 53-63.

DO: 10-3702, 11 March 53, (Letopis 'Zurnal 'nyich Statey, No. 8, 1949).

Rylenko, Ye. I. and Demicheva, A. P. - "On the question of the ability of the Tinal' muil lar'e to prolong life", Trudy Astrakh. res. ied. in-ta, Vol. IX, 1948, p. 35-41.

SO: U-3042, 11 March 53, (Ictopis 'Zurnal 'nykh Statey', No. 8, 1948).

Rudenik, Ye. I., Vayrintsev, T. I., and Murygin, I. I. - "On the possibility of using certain salt lakes of the Southern Astrakhan' group for therapeutic purposes", (Reports 1 and 2), Trudy Astrakh. ges. nacl. in-ta, Vol. IX, 1948, p. 41-57.

Sp: U-30/2, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

RUDENKO, Yevgeniy Ivanovich; TAUBE, Petr Reymgol'dovich; TOLMIRID!, L.,
red.; VORONKOVA, Ye., tekhn. red.

[Fifth ocean] Piatyi okean. Penza, Penzenskoe knizhnoe izd-vo,
1962. 188 p. (Atmosphere) (MIRA 16:3)

RUDENKO, Ye. V.

USSR/Medicine - Wheat
Medicine - Seeds

Feb 49

"The Significance of Factors of External Environment and of Different Portions of Seed for the Germination of Physiologically Immature Wheat Seed," V. V. Skripchinskiy, Ye. V. Rudenko, 3 pp

"Dok Ak Nauk SSSR" Vol LXIV, No 5

Attempts to clarify the role of water, oxygen and temperature in the germination of physiologically immature wheat seeds. On this basis, studies external nature and causes of the discrepancy in maturity and ripeness of the seeds. Submitted by Acad N. A. Maksimov, 16 Nov 48.

PA 29/49T56

RUDENKO, Ye. V.

"Investigation of Certain Questions of the Agricultural Biology of Sorghum-Johnson Grass Hybrids." Cand Agr Sci, All-Union Sci Res Inst of Fodder, Moscow, 1954. (RZhBiol, No 8, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

GORKOVICH, A.G., inzh.; KURTAEV, A.N., inzh.; RUDENKO, Yu.N., kand.
tekhn. nauk; SOWALOV, S.A., kand. tekhn. nauk.

Determination of optimum operating modes of electric power
systems. Elektricheskvo no.8:75-87 Ag '64.
(MIRA 17:11)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

RULENSK, Yu.N., kand. tekhn. nauk, rehky SIBNI, Yu.P., kand. tekhn. nauk;
CHELMISOV, M.P., inzh.

Discussion of I.È. Syredatnikov's article "Principal trends in
the development of electric power distribution networks." Izv.
vys. ucheb. zav. energ. 8 no.11169-112 N '65.

(MIRA 18:11)

I. Sibirskiy energeticheskiy institut Sibirskego obshcheniya
AN SSSR.

RUDENKO, Yu.N., kand. tekhn. nauk; SOKOLOV, V.K., inzh.; YASNIKOV,
V.N., inzh.

Distribution of power reserves in an electric power system.
Elek. sta. 35 no.10:43-49 0'64. (MIRA 17:12)

RUDENKO, Yu.N., inzh.

Use of computer to calculate the equations of a saturated salient-pole synchronous machine taking excitation control and the moment of the primary motor into consideration. Izv. vys. ucheb. zav.; energ. 3 no. 9:37-45 S '60. (MIRA 13:9)

1. Leningradskiy politekhnicheskiy institut imeni M.I. Kalinina.
Predstavlena kafedroy elektricheskikh setey i sistem.
(Electric machinery, Synchronous)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

LYTAMEV, U.A., inzh.; RUDENKO, Yu.N., kand. tekhn. nauk; YASNIKOV, V.N., inzh.

Features of using automatic frequency control in unified power systems. Elek. sta. 36 no.9:26-30 S '65. (MIRA 18:9)

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CIA-RDP86-00513R001445920010-5

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CIA-RDP86-00513R001445920010-5"

PURTNOY, M.G., kand. tekhn. nauk; RUDENKO, Yu.N., kand. tekhn. nauk;
YASNIKOV, V.N., inzh.

Joining of Siberian power distribution networks by weak intersystem
couplings. Elek. sta. 34 no.5:37-43 My '63. (MIRA 16:7)

(Siberia--Interconnected electric utility systems)

5(1)

PHASE I BOOK EXPLOITATION

SOV/2867

Vol'fkovich, S. I., Z. A. Rogovin, Yu. P. Rudenko, and
I. V. Shmanenkov

Obshchaya khimicheskaya tekhnologiya, t. 2 (General Chemical Tech-nology, Vol 2) Moscow, Goskhimizdat, 1959. 848 p. Errata slip inserted. 25,000 copies printed.

Ed. (Title page): S. I. Vol'fkovich, Academician; Eds. (Inside book): N. S. Avramova and G. P. Luchinskiy; Tech. Eds.: V. F. Zazul'skaya and P. V. Pogudkin.

PURPOSE: The book is intended as a standard reference on general chemical technology for students at chemical and technological institutes as well as for chemistry departments of universities and polytechnic vuzes. The text may also serve as a manual for engineers and technicians in industrial enterprises and for personnel of scientific research institutes.

COVERAGE: The book , the second of two volumes on general chemical technology, describes electrothermal processes, technology of silicates, production of ferrous, nonferrous, and rare metals,

Card 1 / 36

General Chemical Technology, Vol 2

SOV/2867

the technology of nuclear processes, basic organic synthesis, and high molecular weight compounds. Concise information on fine chemical technology and the dyestuff industry is also given. Chapters XX-XXII of Part 6, Section 1 and 2 of Chapter XXIX, Part 9, Section 3 of Chapter XXXVII, Part 10, and Chapter XLVI were written by S. I. Vol'fkovich. Chapters XXIII-XXVII (except Section 3 of Chapter XXIV) and Chapter XXVIII (except Section 6) were written by I. V. Shmanenkov; Chapters XXII-XXXVIII, by Yu. P. Rudenko; Chapters XL - XLIV, by Z. A. Rogovin. Sections of the course which had not been included in the original program of Volume II were written by the following authors: Section 6 of Chapter XXVIII, by N. M. Sobinyakova; Section 3 of Chapter XXIX, Chapter XXX and Sections 1, 2, and 4 of Chapter XXXI, by Yu. I. Karyakin and A. I. Kitaygorodskiy; Section 3 of Chapter XXXI, by Ye. P. Dergunov; Chapter XXXIX, by M. A. Chekalin; Section 3 of Chapter XXIV and Chapter XLV, by M. M. Gol'dberg. The authors thank P. P. Budnikov, N. N. Vorozhtsov, N. A. Dolezhal', V. S. Yemel'yanov, O. Ye. Zvyagintsev, P. Ye. Kazaryan, S. V. L'vov, N. N. Postnikov, N. V. Solomin, G. V. Uvarov, I. I. Yukel'son, S. D. Evenchik. The authors also thank P. P. Sergeev *[deceased]* for preparing the section, "Basic Organic Synthesis." References accompany each chapter.

Card 2/36

MAMOKHIN, I.I.; MORGUNOV, V.S.; POLYAKOV, A.K.; RUDENKO, Yu.P.

Using the gamma-ray scattering method in Karamazar complex ore
mines. Uch. zap. SAIGIMSa no.8:63-71 '62. (MIRA 17:1)

1. ATRU i Sredneaziatskiy nauchno-issledovatel'skiy institut
geologii i mineral'nogo syr'ya, Tashkent.

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDENKO, Yu. P.

Author mentioned in the book: General Chemical Technology (Vol.1), (Obshchaya khimicheskaya tekhnologiya) by: Vol'fkovich, S.I.; Yegorov, A. P.; and Epshteyn, D.A.

A.I.D., Library of Congress (Call No. AF582723)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

LEPENDIN, L.F.; RUDENKO, Yu.S.

Growth of crystals from hyposulfite melts in an ultrasonic field.
Prim. ul'traakust. k issl. veshch. no.14:241-245 '61. (MIRA 14:12)
(Dithionite crystals--Growth) (Ultrasonic waves)

S/194/62/000/004/052/105
D295/D308

AUTHORS: Lepending, L. F., Rudenko, Yu. S. and Ruchko, R. I.

TITLE: Calorimetric method for the measurement of ultrasonic power

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4-5-29k (V sb. Prom. primeneniye ul'trazvuka. Kuybyshevsk. aviat. in-t, Kuybyshev, 1962, 72-74)

TEXT: The mean intensity of the ultrasonic field of a magneto-constriction radiator was measured by means of a calorimeter consisting of two containers insulated from each other and separated by a sound-conducting diaphragm. In one container is the vibrator to be measured and in the other a sound-absorbing substance. Running water is fed into both containers, the temperature of the water being determined by thermometers at the outlet of the containers. The rate of flow of the water is so chosen that the temperatures at the outlet of the calorimeter are equal (in order to

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S/194/62/000/004/052/105

D295/D308

Calorimetric method for ...

eliminate thermal exchange between the containers). The efficiency of the transducer and the power coefficient are determined on the basis of the rate of flow of water and of the current and voltage applied to the radiator. / Abstracter's note: Complete translation. /

Card 2/2

L 33339-66 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI JD/HM/GD
ACC NR: AT6013170 (A) SOURCE CODE: UR/0000/60/000/000/0075/0076

AUTHOR: Lependin, L. F.; Rudenko, Yu. S.; Ruchko, R. I.

ORG: none

TITLE: Ultrasonic effect on weld structure in electroslag welding

SOURCE: Moscow. Oblastnoy pedagogicheskiy institut. Primeneniye ul'traakustiki k issledovaniyu veshchestva, no. 12, 1960, 75-76

TOPIC TAGS: welding, ultrasonic welding, ~~electroslag welding~~ WELD EVALUATION

ABSTRACT: A number of experimental welds made with the use of ultrasonics in an electroslag welding tank has been carried out. By metallographic examination, a noticeable difference was detected in the structure of weld samples and not exposed to sonic waves. The microstructure of the weld, crystallizing in the ultrasonic field, is more homogeneous. Experimental welding for more thorough study of the ultrasonic effect on the mechanical properties of welds are being carried out. Orig. art. has: 2 figures. [NT]

SUB CODE: 11/ SUBM DATE: 31Oct60/ ORIG REF: 005/ OTH REF: 003/

Card 1/14

47 730

S/263/62/000/014/005/006
1007/1207

AUTHOR: Lependin, L. F., Rudenko, Yu. S. and Ruchko, R. I.

TITLE: Calorimetric method of measuring ultrasonic intensity

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel'naya tekhnika, no. 14, 1962, 24, abstract 32.14.152. (In Collection Prom. primeneniye ul'trazvuka. Kuybishevsk. aviat. in-t. Kuybyshev, 1961, 72-74)

TEXT: A method used at the Taganrogskiy radiotekhnicheskoiy institut (Taganrog Electronics Institute) for calorimetric determination of the average intensity of an ultrasonic field is described. The method, combined with measurements of voltage and intensity of electric current applied to the radiator, permits the determination of the electroacoustic efficiency and of the power factor ($\cos \varphi$) of the radiator. There are 2 figures

[Abstracter's note: Complete translation.]

Card 1/1

40335

S/194/62/000/006/123/232
D256/D308

AUTHORS: Lependin, L.F., Rudenko, Yu.S., and Ruchko, R.I.

TITLE: Effect of ultrasound on crystallization of polycrystals

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-5-40 y (V sb. Primeneniye ul'traakust. k issled. veshchestva, no. 12, M., 1960, 77-80)

TEXT: The process of crystallization of hyposulphite was investigated at 80 kc/s and approx. 3 W/cm² energy flux. The crystallization of the hyposulphite was observed in test-tubes placed in a water bath. Without the ultrasound the crystallization started from the bottom of the tube and to some extent from the central region of the melt. Photographs were taken showing a coarse grained structure with a large number of blisters. Using the ultrasonic treatment the crystallization starts at the top of the tube and spreads downwards producing a uniform mass free of blisters. It is shown that the change of the crystalline structure results in chan-

Card 1/2
REFERENCE S/194/62/000/006/123/232

Effect of ultrasound on ...

S/194/62/000/006/123/232
D256/D308

ged mechanical properties of hyposulphite, the strength and the modulus of elasticity being increased. Crystallization of zinc from a melt was investigated using a magnetostrictive radiator with concentrator at 30 kc/s and 5 to 6 W/cm² energy flux. A fine grain structure with crystals having equal axes, an increased strength limit and reduced modulus of elasticity was obtained. 4 figures.
[Abstracter's note: Complete translation.] ✓

Card 2/2

S/194/62/000/005/086/157
D222/D309

AUTHORS: Lependin, L.F., Rudenko, Yu.S., and Ruchko, R.I.

TITLE: Some experiments on the kinetics of crystallization from solutions in an ultrasound field

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 5, 1962, abstract 5-5-41 l(V sb. Prom. primeneniye ul'trazvuka, Kuybyshevsk. aviat. in-t. Kuybyshev. 1961, 220 - 228)

TEXT: The influence of low and high intensity ultrasound on the kinetics of crystallization and on the physical properties of zinc and hyposulphite were investigated, which, since they are transparent, have a macrocrystalline structure when crystallized under normal conditions, and a low crystallization temperature. Sound radiation was obtained from a magnetostrictive vibrator at a frequency of 30 kc/s and intensity up to 5 - 6 W/cm² in the melted metal. In the intense ultrasound field a marked change in the structure of the ingot was observed towards fine-grain structure; the crystallization process changed from frontal to volume; the average density of

Card 1/2

Some experiments on the kinetics of ...

S/194/62/000/005/086/157
D222/D309

the ingot remained unchanged. Tensile testing of zinc specimens has shown that in the ultrasound field the proportionality limit is raised, the tensile strength increased, while the modulus of elasticity is reduced. The hyposulphite specimens solidified under the influence of ultrasound showed an increased tensile strength. The irradiated specimens broke down under pressure at 80 - 90 kg/cm², while the non-irradiated ones at 25 - 30 kg/cm². The Young's modulus of the irradiated specimens was 6 - 8 kg/cm², that of the non-irradiated ones 3 kg/cm². Experiments on the action of low-intensity ultrasound (0.03 W/cm²) were carried out with hyposulphite specimens. It was observed that under the influence of ultrasonic field, the axis of the crystals is directed along the direction of propagation of the ultrasound; new centers of crystallization arise. The crystal growth takes place through the attachment of complete crystals, which increases the speed of crystallization. The crystals growth in an ultrasound field are more homogeneous and contain less impurities. 8 figures. 3 references. [Abstractor's note: Complete translation].

Card 2/2

35836
S/137/62/000/004/159/201
AC60/A101

12300

AUTHORS: Lependin, L. F., Rudenko, Yu. S., Ruchko, R. I.

TITLE: Effect of ultrasonics upon the seam structure of penetrating electric slag welding

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 8, abstract 4E35
(V sb. "Primeneniye ul'traakust. k issled. veshchestva", no. 12,
Moscow, 1960, 75 - 76)

TEXT: The effect of ultrasonic radiation upon the seam structure in the course of electric slag welding was investigated. The welding was carried out of a large number of experimental seams with various variants of introducing the ultrasonic vibration into the vat. Metallographic analysis has discovered a notable difference in the structure of irradiated and nonirradiated specimens of the seam. The microstructure of the seam crystallized in an ultrasonic field is more homogeneous. The dimensions of the grains of a seam on the boundary of the built-up and the base metal are smaller by a factor of 1.2, and by a factor of 1.9 in the center, than those in specimens welded according to the same welding

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Effect of ultrasonics upon...

S/137/62/000/004/159/201
A060/A101

schedule but without ultrasonic action. A different etchability is uncovered in seams crystallized under ordinary conditions and in an ultrasonic field, which is the result of the purification of the built-up metal from slag impurities. See also RZhMet, 1961, 1E3⁴.

V. Tarisova

[Abstracter's note: Complete translation] ✓

Card 2/2

10

Reserves of raw materials for the production of dichloroethane. Yu. P. Rudenko. *Sbornik Dokladiet* 1939, 14-17; *Khim. Referat. Zhur.* 1940, No. 3, 87.—In the production of synthetic NH₃ based on the sepn. of coke gas according to the Linde method for obtaining H there is obtained an C₂H₂ fraction contg. 40.85% of C₂H₂. This C₂H₂ fraction can be utilized for the production of C₂H₂Cl₂ either directly or after purification from C₂H₂ and the higher hydrocarbons. The pyrolysis contains approx. 20 wt. % of C₂H₂, but can be utilized only after the sepn. of higher olefin hydrocarbons which, on forming products of chlorination, contaminate C₂H₂Cl₂. The products of liquid-phase cracking can be used for the production of C₂H₂. Another starting material used for the production of C₂H₂Cl₂ is Cl, which can be obtained from the electrolysis of NaCl. W. R. Henn

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDENKO, Z.Ya., kand.med.nauk, GERTSENSHTEYN, E.N., logoped

Speech training. Zdorov'e 4 no.6:25-26 Je '58 (MIRA 11:6)
(SPEECH, DISORDERS OF)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDENKO, Z.Ya., kand.med.nauk; GERTSENSHTEYN, E.N., logoped.

Stammering. Zdrov'e 3 no.10:18-19 o '57. (MIRA 10:11)
(STAMMERING)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

38336 RUDENKO, Z. YA. AND BABAT, R. L.

Dinamika ocharovykh simptomov porazheniya posleissecheniya
obolechno-mozgovogo pubtsa. Voprosy neyrokhirurgii, 1949, No6, s. 9-17

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

BEYN, E.S.; GERTSENSHTEYN, E.N.; RUDENKO, Z.Ya.; TAPTAFOVA, S.L.;
CHERNOVA, A.D.; SHOKHOR-TROTSKAYA, M.K.; KUKUYEV, L.A.,
red.; KUZ'MINA, N.S., tekhn. red.

[Handbook on the recovery of speech by persons affected with
aphasia] Posobie po vosstanovleniiu rechi u bol'nykh afaziei.
Pod red. E.S.Bein. Moskva, Medgiz, 1962. 335 p.
(MIRA 15:5)

(APHASIA) (SPEECH THERAPY)

RUDENKO, V.Ye.

Clinical characteristics of atalias. Zhur. nevr. i psich. 64
no. 7;1065-1069, '64. (MIR 17:12)

I. Institut defektologii (direktor - prof. A.I. B'yachkov)
Akademii pedagozheskikh nauk RSFSR i Mediko-pedagogicheskaya
konsul'tatsiya (zaveduyushchiy M.S. Bydinova), Moskva.

RUDENKO, Z Ya.

"Disruption of Number Memory and Counting in Local Affections of the Brain."
Sub 4 Jan 51, Acad Med Sci USSR.

Dissertations presented for science and engineering degrees in Moscow
during 1951.

SO: Sum. No. 480, 9 May 55.

RUDENKO, Z.Z.

Communist Youth League camps. Politekh. obuch. no.10:80-82 O '57.
(MLRA 10:9)

1. Srednyaya shkola No.640, Moskva.
(Agriculture--Study and teaching) (Communist Youth League)

SHI UPOCHENKO, T.S., kand. tekhn. nauk; RUMENKO-GRITSYUK, G.Ye., inzh.;
BULGAK, M.G., inzh.

Studying the local hydraulic resistance of a pipe bend in
the flow of feed molasses. Pisheh. prom. no.1:138-142 '65.
(MIRA 18:11)

LISOVENKO, O.T.; RUDENKO-KRITSINS, O.A. (Rudenko-Krytsins, O.A.)

Characteristics of the thermal conditions of the Kh-29 oven.
Khar. prom. no.2:23-26 Ap-Je '65. (MIRA 18:5)

RUDENKO-GRITSYUK, O.A.; MIKHELEV, A.A.; LISOVENKO, A.T.

Reducing ventilation losses in the working chamber of a conveyor bakery oven. Trudy KTIIPP no.27:12-19 '63.

(MIRA 17:5)

RUDENKO-GRITSYUK, O.A.

Kinetics of the warming of dough cakes in the intensification of heat transfer by convection. Izv.vys.ucheb.zav.; pishch. tekhnika no.3:133-137 '63. (MIRA 16:8)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra khlebopекarnogo proizvodstva.
(Heat—Transmission) (Baking) (Infrared heating)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RAYTER, I.M.; RUDENKO-GRITSYUK, G.Ye.

New data on the thermal conductivity, temperature conductivity,
and Prandtl numbers of aqueous ethyl alcohol solutions. Trudy
KTIFF no.21:79-84 '59. (MIRA 14:1)

(Ethyl alcohol—Thermal properties)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

ROYTER, I.M.; RUDENKO-GRITSYUK, G.Ye.

Nomogram for determining the heat transfer coefficient during the
condensation of water-alcohol vapors. Trudy KTIFF no.21:85-89 '59.
(MIRA 14:1)

(Alcohol) (Water vapor)
 (Heat--Transmission)

SHLIPCHENKO, Z.S.; RUDENKO-GRITSYUK, G.Ye.

Investigating some local resistances in the tubes during the flow of feed molasses. Trudy KTI^P no.25:36-41 '62.

(MIRA 16:5)

(Frictional resistance (Hydrodynamics)) (Evaporating appliances)

RUDENKO-GRITSYUK, O. A.

✓ Kinetics of glucose conversion in dilute sulfuric acid at 100°. I. M. Litnak and O. A. Rudenko-Gritsyuk. Trudy Kiev. Tekhnol. Inst. Pishchev. Prom. 1953, No. 13, 81-9. Referat. Zhur., Khim. 1955, No. 6717.—It was shown experimentally that losses of glucose upon heating in dil H₂SO₄ increase as the concn. of glucose increases. Duration of heating of glucose in the presence of acid required to attain an equil. in the reversion reaction depends on the initial concn. of glucose and on the concn. of the acid. The relation between the duration of heating glucose of various concn. (Z) in 0.5N H₂SO₄ and loss (R) of glucose is given by

$R = Z/(a + bZ)$, where a and b are coeffts. detd by the concn. of glucose. The same loss of glucose is related to its concn. C by $R = 0.64 + 0.4C$. A decrease of losses in the hv dialysis of starch brought about by the reversion and decompn. of glucose can be attained by lowering the concn. of starch. For a temp. of 100° and for an acid concn. suitable for industrial use, equil. in the reversion reaction is not attained within 8 hrs. M. Hosch

RUDENKO+GRITSYUK, O. A.

3

Inversion kinetics of glucose in the presence of acids at 110-50°. I. M. Litvak and O. A. Rudenko-Gritsyuk. *Trudy Kiev. Tekhnol. Inst. Pishchev. Prom.* 1954, No. 14, 26-33; *Referat. Zhur., Khim.* 1956, Abstr. No. 8512; cf. *C.A.* 50, 17493f. — The methods and results of the following investigations are given: (1) the effect of length of heating from 110 to 150° on the losses from reversion and decompr. of glucose solns. at different concns.; (2) the effect of temp. and the concn. of glucose and acid on the speed of mutarotation to equil.; (3) the inversion velocity of glucose after reaching equil. in reversion reaction which depends on the temp. and the glucose and acid concns. The results are shown by 7 graphs. During the heating of glucose with acid, two processes take place simultaneously—formation of reversion products and decompr. of the glucose. The basic losses are the bimol. condensation of glucose. Increase of acid concn. and temp. speed up both reactions. The reversion losses are const. and depend on the original concn. of the glucose. The decompr. losses increase with the temp. and concn. of the acid. Direct relation between the reversion velocity and the acid concn. is not established. This relation is complex because of two simultaneous processes—the reversion and the decompr. of the glucose. At increased acid concn. decompr. predominates. For decreasing the losses by acid hydrolysis of starch, lowering the d. of the starch suspension is recommended. N. V.

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDENKO-GRITSYUK, O.A.; MIKHELEV, A.A.

Heat and mass transfer in a baking chamber during agitation
by an air-steam mixture. Trudy KTIPP no.22:101-107 '60.
(MIRA 14:3)

(Baking) (Heat—Transmission) (Mass transfer)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

RUDENKO-GRITSYUK, O.A., [Rudenko-Hrytsiuk, O.A.]; MIKHELEV, A.A. [Mikheliev, A.A.]

Bakery ovens with intensified convection heat exchange in the baking chambers. Khar.prom. no.4:66-68 O-D '62. (MIRA 16:1)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti.
(Ovens)

RUDENKO-GRITSYUK, O.A.; MIKHELEV, A.A.

Heat and mass transfer in capillary bodies in the process of
heating. Inzh.-fiz.zhur. 6 no.3:95-98 Mr '63. (MIRA 16:4)

1. Tekhnologicheskiy institut pishchevoy promyshlennosti, Kiyev,
(Heat—Transmission) (Mass transfer) (Capillarity)

BOGIN, Naum Markovich, kand. tekhn. nauk., DISSON, P.S., inzh.;
dota., RUDENKO-MORGUN, I.Ye., kand. tekhn. nauk., nauchnyy red.; GUROV,
Yu. S., red. izd-va.; ML'KINA, E.M., tekhn. red.

[Reinforced concrete supports for overhead lines] Zhelezobetonnye
opory vozdushnykh linii. Moskva, Gos. izd-vo lit-ry po stroit.,
arkhit. i stroit. materialam, 1958. 193 p. (MIREA 11:10)
(Electric lines--Poles)

SARAPIN, Iosif Godelevich; GORDKEV, P.A., red.; RUDENKO-MORGUN, I.Ya., kand.
tekhn. nauk, nauchnyy red.; PERSON, M.N., tekhn. red.

[Using the stand method in the manufacture of large reinforced
concrete members and parts] Izgotovlenie krupnorazmernykh zhele-
zobetonnykh konstruktsii i detalei stendovym sposobom. Moskva,
Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam,
1958. 166 p. (MIRA 11:7)

(Precast concrete)

KODNIKOV - POKROV, T. Yu.

NOVIKOV, B.A., kand.tekhn.nauk; RUDENKO-MORGUN, I.Ya., kand.tekhn.nauk,
nauchnyy red.; SKVORTSOVA, T.P., red.izd-va; BOROVNEV, N.K.,
tekhn.red.

[Use of glass blocks in foreign countries] Opyt primeneniia
stekliannykh blokov za rubezhom. Moskva, Gos. izd-vo lit-ry
po stroit. i arkhit., 1957. 38 p. (MIRA 11:5)
(Glass construction)

SIZOV, Vasiliy Nikolayevich, prof., doktor tekhn.nauk;
RUDENKO-MORGUN, Ivan Yakovlevich, dots., kand. tekhn.
nauk; TKhILADZE, Georgiy Rodionovich, inzh.; USEMKO,
Vasiliy Mitrofanovich, kand. tekhn. nauk; SHVIDENKO,
V.N., prof., retsenzent; DANILEVSKIY, A.S., inzh.,
retsenzent; KUPERSHMIDT, L., red.

[Technology of construction] Tekhnologiya stroitel'nogo
proizvodstva. [By V.I.Sizov i dr. Moskva, Vysshiaia shkola,
1964. 613 p.] (MIRA 19:1)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

BITYUKOV, I.I., inzh.; RUDENKOV, A.I., inzh.

Use of precast reinforced concrete in the construction of the
Volga Chemical Combine. Prom. stroi. 41 no.8:15-19 Ag '64.
(MIRA 17:11)

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"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

RUDNEN'Y, Bel., incl.

Bunker warehouse made of precast concrete elements. From. stroi. 41
no. 8:29-31 Ag '64. (MIRA 17:11)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5"

Rudenok, M. I.

✓ Surface structure of thin lead sulfide layers evaporated in

vacuum. R. Ya. Berlaga, M. I. Rudenok, and L. P.
Strakhov. Soviet Phys. Tech. Phys., 1, 2 (1956) (English
translation).—See C.A. 50, 10473e. B. M. R.

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S/181/61/003/002/042/050
B102/B201

AUTHORS: Berlaga, R. Ya. and Rudenok, M. I.

TITLE: Production of replicas from cross sections of thin layers

PERIODICAL: Fizika tverdogo tela, v. 3, no. 2, 1961, 625-626

TEXT: The authors have devised a method of obtaining pictures of cross sections of a layer without having to use a microtome, thus making it possible to intercompare the inner and surface structures of the layer. This method is above all of interest because of the difficulty one encounters in obtaining ultramicroscopic sections of the order of hundred angstroms, which are required for electron microscopy. The method consists in the following procedure: a PbS layer is evaporated in vacuo over a glass base which is then broken together with the layer, and, first an aluminum layer of 100-200 Å, and then a carbon film are, again by vacuum evaporation, applied to the fissure. The carbon film covers both the fissure of the layer and the adjoining surface. The aluminum layer is then detached with hydrochloric acid, and the carbon film thus laid bare is stretched on a net after having been carefully washed, and is examined in

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S/181/61/003/002/042/050
B102/B201

Production of replicas from ...

the electron microscope. It is thus possible simultaneously to observe surface and cross section. A few of such pictures are shown (not reproducible). From a great number of such pictures the authors draw the conclusion that, in general, the direction of crystal growth coincides with the direction of the molecule beam. While examining the photo-emf appearing in PbS layers, the authors discovered, by means of an electron microscope, certain crystalline structures on the layer surface, whose axes coincided with the molecule beam direction. Both the replica method and the method of recording the profile were applied in this connection. Academician A. A. Lebedev is thanked for his interest and advice. There are 2 figures and 7 references: 5 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Fizicheskiy fakul'tet Leningradskogo gosudarstvennogo universiteta (Division of Physics of Leningrad State University).
Problemnaya laboratoriya poluprovodnikov (Special Research Laboratory for Semiconductors)

SUBMITTED: July 4, 1960

Card 2/2

RUDENOK, M. I.

USSR/Physical Chemistry - Crystals, B-5

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 60931

Author: Berlaga, R. Ya., Rudenck, M. I., Strakhov, L. P.

Institution: None

Title: On Structure of Thin Layers of PbS Produced by Evaporation in Vacuum

Original Periodical: Zh. tekhn. fiziki, 1956, 26, No 1, 3-5

Abstract: Electron microscopic investigations of sublimated layers of PbS (I) (Referat Zhur - Khimiya, 1956, 50034) show that surface of I layer is covered with needle crystals the axes of which are directed approximately parallel to the molecular cluster on sublimation of I. Length of crystals varies from 0.2 to 8 μ although conditions of sublimation are the same. Layers with short crystals have a mirror surface, those with longer crystals a dull surface. After heating in air at 700° shape of crystals is changed which is attributed to formation of lanarkite $PbO \cdot PbSO_4$. Investigations of reflecting

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USSR/Physical Chemistry - Crystals, B-5

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 60931

Abstract: power of I layer under different angles show that directions of maximum and minimum reflection are within the plane of molecular cluster.

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ACCESSION NR: AP4024465

S/0054/64/000/001/0159/0162

AUTHORS: Borlaga, R. Ya.; Rudenok, M. I.

TITLE: Surface structure, electric, and photoelectric properties of thin lead sulphide layers obtained by the cathode-sputtering method

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 1, 1964,
159-162

TOPIC TAGS: lead sulphide layer, cathode sputtering, activation energy, adsorption spectrum, electron diffraction, vacuum evaporation, single crystal PbS film

ABSTRACT: Thin PbS layers were produced by the cathode-sputtering method under a bell jar at 10^{-1} to 5×10^{-2} mm Hg pressures and at temperatures of 250-270°C. Average evaporation rate was 0.2μ per hour; the substrate was at a 3.5-4 cm distance from the cathode. The activation energy was calculated from temperature dependence of conductivity using both the cathode sputtering technique and evaporation in vacuum with noticeable differences in the measured conductivity between the two methods. The adsorption spectrum was measured in thin polycrys-

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ACCESSION NR: AP4024465

stalline layers of PbS obtained by the cathode sputtering method. Electron microscopic and electron diffraction studies were carried out. The PbS layers obtained exhibit the same properties as the layers produced by the vacuum evaporation method. The ability to produce polycrystalline and single crystal PbS films is shown to be possible by the cathode-sputtering method. "L. I. Meshcherskaya took part in the experiments." Orig. art. has: 5 figures.

ASSOCIATION: none

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CIA-RDP86-00513R001445920010-5

BERLAGA, R.Ya.; RUDENOK, M.I.

Surface structure, electric and photoelectric properties of thin
PbS films produced by cathode sputtering. Vest. LGU 19 no.4:
159-162 '64. (MIRA 17:3)

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CIA-RDP86-00513R001445920010-5"

BERLAGA, R.Ya.; BUL'SHAKOV, L.P.; KONOROV, P.P.; RUDENOK, M.I.

Structure of and recombination on a thermally oxidized germanium
surface. Fiz. tver. tela 5 no.10:2990-2996 0 '63. (MIRA 16:11)

1. Leningradskiy gosudarstvenny universitet.

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920010-5

BERLAGA, R.Ya.; KCNCROV, P.P.; RUDENOK, M.I.

Investigation of germanium surfaces by means of an electron microscope. Radiotekh. i elektron 6 no.8:1370-1373 Ag '61. (MIRA 14:7)
(Germanium) (Electron microscopy)

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CIA-RDP86-00513R001445920010-5"

Rudenok, M. I.

4

3

[Signature] ✓ Surface structure of thin lead sulfide layers evaporated in
vacuum. R. Ya. Il'elaga, M. I. Rudenok, and L. P.
Strakhov. *Zhur. Tekn. Fiz.*, v. 6, p. 1900. — The surface
was examin. under reflected light and in an electron micro-
scope. The expts. show that the surface consists of cryst.
needles 0.2–0.8 μ long, the axis of which is directed parallel
to the mol. beam. Heating the crystals in air to 700°
changes their shape, probably by formation of new crystals
of laurite, $PbO \cdot PbSO_4$. S. Pakswr.

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